**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region 6**
**1445 Ross Avenue, Suite 1200**
**Dallas, TX 75202-2733**

September 23, 2013

Mr. Jim Stovall
Field Manager, Carlsbad Field Office
U.S. Department of Interior
Bureau of Land Management
620 East Greene Street
Carlsbad, NM 88220

RE: Detailed Comment Letter for Draft Environmental Impact Statement (DEIS)
Ochoa Mine Project in Lea County, New Mexico

Dear Mr. Stovall:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the DEIS prepared by the U.S. Department of Interior, Bureau of Land Management (BLM).

The DEIS evaluates the effects of allowing Intercontinental Potash Corporation (IPC) to develop and operate mining and processing operations partly on BLM-managed public land and minerals and partly on state and private lands. The proposed new mine in southern Lea County, New Mexico would extract polyhalite ore for the production of the sulfate of potash. As proposed by IPC, the project involves two separate operations: mining polyhalite ore from an underground formation and processing the raw polyhalite to produce marketable products. The final products would be transported by truck to a load-out facility near Jal, New Mexico, to be loaded on trains and shipped to markets. The proposed project would operate for 50 years. The DEIS describes and analyzes the potential effects from three alternative actions and the No Action alternative relating to soils, water resources, vegetation, wildlife and fish, rangelands and livestock grazing, recreation, visual resources, cultural resources, environmental justice, health and safety, and socioeconomics.

EPA rates the DEIS as "**EC-2",** i.e., EPA has "environmental concerns and requests additional information" in the Final Environmental Impact Statement (FEIS). EPA's Rating System Criteria can be found here: http://www.epa.gov/oecaerth/nepa/comments/ratings.html.

The "EC" rating is based on the potential for adverse impacts. The "2" indicates the DEIS does not contain sufficient information to fully assess the impact of the action and additional information is requested. Detailed comments are enclosed with this letter which clearly identifies our concerns and the informational needs requested for incorporation in to the FEIS. Responses to comments should be placed in a dedicated section of the FEIS and should include the specific location where the revision, if any, was made. If no revision was made, a clear explanation should be included.

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS, and an internet link, when it is sent to the Office of Federal Activities, EPA (Mail Code 22252A), William Jefferson Clinton Federal Building, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. If you have any questions or concerns, please contact Kimeka Price of my staff at (214)665-7438 or via email at price.kimeka@epa.gov for assistance.

Sincerely,

Debra A. Griffin
Associate Director
Compliance Assurance and
Enforcement Division

Enclosure

# DETAILED COMMENTS
# ON THE
# U.S. DEPARTMENT OF INTERIOR
# BUREAU OF LAND MANAGEMENT
# DRAFT ENVIRONMENTAL IMPACT STATEMENT
# FOR OCHOA MINE PROJECT IN
# LEA COUNTY, NEW MEXICO

## BACKGROUND

The DEIS analyzes the effects of allowing Intercontinental Potash Corporation (IPC) to develop and operate mining and processing operations partly on BLM-managed public land and minerals and partly on state and private lands. The proposed new mine in southern Lea County, New Mexico would extract polyhalite ore for the production of the sulfate of potash. As proposed by IPC, the project involves two separate operations: mining polyhalite ore from an underground formation and processing the raw polyhalite to produce marketable products. The final products would be transported by truck to a load-out facility near Jal, New Mexico, to be loaded on trains and shipped to markets. The proposed project would operate for 50 years.

The project area as proposed by IPC encompasses 31,134 acres of which approximately 2,400 acres would be distributed. The new surface disturbance includes construction and operation of mining, office, and processing facilities; development of up to 8 brackish water wells; an 11-mile new water pipeline; and a railroad load-out facility near Jal, New Mexico. Processing requires pumping a maximum of 4,000 gallons per minute of groundwater from the Capitan Reef Aquifer. The surface land ownership consists of approximately 22 percent public lands managed by the BLM, 53 percent owned by the State of New Mexico, and 25 percent privately owned. Approximately 55 percent of the minerals within the proposed mine area is owned by the federal government.

## COMMENTS

The following comments are offered for BLM's consideration in preparation of the FEIS:

### General Air Quality

In the Environmental Consequences Section addressing Air Quality, the DEIS describes impacts to ambient air quality relating to construction equipment emissions and project-generated air emissions. In general, the DEIS does not appear to fully address air quality impacts and mitigation measures related to potential construction activities (i.e., excavation, surface disturbance related to route/trail network, and/or roadway management activities) in the Ochoa Mine Project area.

***Recommendations:***

The FEIS should include best management practices for $PM_{10}$ and fugitive dust control (e.g., gravel roads, soil wetting practices, limiting access, traffic and speed reduction). Also, the FEIS should more fully discuss specific actions including dust ordinances on the county level, educational outreach tools, and tools to minimize the public's exposure to $PM_{10}$ for Lea County, as applicable.

Additionally, the FEIS should include a Construction Emissions Mitigation Plan and ultimately in the Record of Decision. In addition to all applicable local, state, or federal requirements, the following control measures (Fugitive Dust, Mobile and Stationary Source and Administrative) should be included (as applicable) in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other pollutants from construction-related activities:

- Fugitive Dust Source Controls: The FEIS should identify the need for a Fugitive Dust Control Plan to reduce Particulate Matter 10 and Fine Particulate Matter 2.5 emissions during construction and operations. The plan should include these general commitments:
    - Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts.
    - During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes.
    - Vehicle Speed
        - Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.
        - Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads.
        - Post visible speed limit signs at construction site entrances.
    - Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable.
    - Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable.
    - Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project.
    - Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is

visible on paved roads, or at least twice daily (less during periods of precipitation).

- Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.
- Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.

o Mobile and Stationary Source Controls:

- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal[1] or State Standards[2]. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible[3].
- Where Tier 4 engines are not available, use construction diesel engines with a rating of 50 hp or higher that meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines[4], unless such engines are not available.
- Where Tier 3 engine is not available for off-road equipment larger than 100 hp, use a Tier 2 engine, or an engine equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides and diesel particulate matter to no more than Tier 2 levels.
- Consider using electric vehicles, natural gas, biodiesel, or other alternative fuels during construction and operation phases to reduce the project's criteria and greenhouse gas emissions.
- Plan construction scheduling to minimize vehicle trips.
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections.
- Maintain and tune engines per manufacturer's specifications to perform at CARB and/or EPA certification levels, prevent tampering,

[1] EPA's website for nonroad mobile sources is http://www.epa.gov/nonroad/.
[2] For California, see ARB emissions standards, see: http://www.arb.ca.gov/msprog/offroad/offroad.htm.
[3] Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and ≥ 750 hp 2011- 2015).

and conduct unscheduled inspections to ensure these measures are followed.

- Administrative controls:
  - Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips.
  - Identify any sensitive receptors in the project area, such as children, elderly, and the infirm, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).
  - Include provisions for monitoring fugitive dust in the fugitive dust control plan and initiate increased mitigation measures to abate any visible dust plumes.

**Mitigation Measures**

In Section 2.4.6.3 of the Proposed Action and Alternatives Section, the DEIS identifies specific mitigation measures the applicant has committed to implemented. However, in Section 2.4.6.4 of the Proposed Action and Alternatives Section, the DEIS identifies mitigation measures that would be applied as needed, depending on the site-specific conditions. Further, in the Environmental Consequences Section, the DEIS identifies mitigation measures that could be applied to avoid or minimize potential impacts from the implementation of the proposed project for geology and minerals, surface water, groundwater, soils, vegetation, wildlife and fish, rangelands and livestock grazing, visual resources, hazardous material, health and safety, and cultural resources. In such instances, the DEIS does not address how the BLM will be bound to these mitigation measures.

***Recommendation:***

The FEIS should incorporate a commitment by the BLM to implement mitigation measures selected to reduce or avoid any adverse impacts from proposed project.

**Water Resources**

*Main Water Supplies:* The DEIS identifies irreversible and irretrievable commitments of resources, including groundwater. Groundwater levels affected by proposed pumping operations are predicted to partially recover in the Capital Aquifer Formation in the long term. Groundwater recharge would be very slow and unpredictable, but not entirely irreversible once pumping cease in the proposed water well field. The estimated time to rebound to 90 percent of pre-pumping water levels is 500 years.

The DEIS focused on two main water supplies, the Capitan Aquifer and the Pecos River, due to concerns related to the proposed water usage for Ochoa Mine operation. Based on

predictive models, after 50 years of pumping, the maximum drawdown in the Capitan Aquifer would be approximately 650 feet in the proposed well field and the Pecos River approximately 0.1 foot.

No impacts to water quality in the Capitan Aquifer were modeled. The drawdown of 650 feet at the end of 50 years may result in a temporary localized increase in its salinity. However, the water quality would return to pre-pumping water quality at the cessation of the pumping as the aquifer rebounds itself. Additionally, there is very little or no information related to the injection, extraction, and monitoring well networks; evaporation ponds system; tailing stockpiles; pipeline system; and reclamation plan in this DEIS. These important components should be designed and comply with federal and state requirements in order to minimize adverse impacts to groundwater.

***Recommendation:***

The FEIS should include the methodology used to model the water quality in the Capitan Aquifer. Additionally, the FEIS should more fully provide information relating to injection, extraction, and monitoring well networks; evaporation ponds system; tailing stockpiles; pipeline system; and reclamation plan.

*Groundwater Aquifers and Formations*: The DEIS states that there are five main ground water aquifers in the northern part of the Delaware Basin in the vicinity of the proposed project area. The quality of the ground water in these aquifers is quite variable, with total dissolved solids (TDS) ranging from less than 2,300 mg/L up to 420,000 mg/L. The aquifers and water quality (TDS) identified in the DEIS are as follows:

- Bell Canyon Aquifer (180,000 mg/L – 270,000 mg/L TDS);
- Rustler Formation – Culebra Dolomite (3,200 mg/L – 420,000 mg/L TDS);
- Rustler Formation – Magenta Dolomite (5,400 mg/L – 270,000 mg/L TDS);
- Santa Rosa Formation – shallow aquifer in Project Area (no water quality information provided);
- Ogallala Formation – major aquifer in southeastern New Mexico (up to 2,300 mg/L TDS) but may not be under proposed project area; and
- Capitan Aquifer – primary aquifer in Capitan Reef Complex (2,300 mg/L – 70,000 mg/L TDS)

In accordance with Title 20, Chapter 6, Part 2 of New Mexico Administrative Code (NMAC), all ground water with TDS of 10,000 mg/L or less must be protected or pollution abated. NMAC 20.6.2.4000 states:

> *"Abate pollution of subsurface water so that all ground water of the State of New Mexico which has a background concentration of 10,000 mg/L or less of TDS is either remediated or protected for use as domestic and agricultural water supply."*

The baseline water quality for all aquifers within the project area (excluding the saline Bell Canyon Aquifer) must be determined before mining and pumping operations commence in order to (1) assess whether the water quality of these aquifers is equal to or below 10,000 mg/L TDS and subject to NMAC 20.6.2 regulations and (2) compare water quality data over the course of the 50-year life of the project to determine if water quality is impacted by mining operation. The DEIS does not indicate that there is ground water in the Quarternary alluvium beneath the proposed project area. However, if ground water is found in the alluvium, it should be monitored for baseline water quality before initiation of the project operations as well.

***Recommendation:***

The FEIS should include the water quality determinations for all appropriate groundwater aquifers and formations.

*Processing Plant Site, Monitoring Wells*: In Section 2.4.2.3, the DEIS identifies that a groundwater monitoring plan would be developed in consultation with BLM before mining operations begin. However, it is unclear if this plan is intended for the Processing Plant Site or for the entire project area, including the 50-Year Mine Area and proposed well field.

***Recommendation:***

The FEIS should include a groundwater monitoring plan for the entire project area, including the 50-year mine area and the proposed water well field. Additionally, the groundwater monitoring plan should include baseline groundwater quality monitoring for all aquifers from ground surface to the mining zone; periodic intervals of monitoring up- and down-gradient of the project area; and associated monitoring of geology and soil relating to subsidence and potential karst hazards.

*Surface Water, Assumptions:* In Section 4.3.1.3, the DEIS identifies several surface water impact assessment assumptions, including construction and operations of National Pollutant Discharge Elimination System permits would be obtained in compliance with U.S. EPA regulatory programs for the State of New Mexico. Site-specific Storm Water Pollution Prevention Plan (SWPPP) would be developed and implemented in compliance with these permits. The collection and conveyance of stormwater run-off contaminated by the tailing stockpile and other mine waste on the ground may infiltrate and percolate downward to the subsurface and contaminate groundwater.

***Recommendation:***

The FEIS should include consultation and coordination with the New Mexico Environmental Department Ground Water Protection Bureau regarding the New Mexico Water Quality Act and the New Mexico Water Quality Control Commission regulations for the protection of groundwater.

*Proposed Action, Processing Plant*: In Section 4.3.1.5, the DEIS identifies that there are two ponds planned to the west of the tailing stockpile - the tailing leachate pond and the storm water detention pond. Both ponds will have liners. The DEIS is not clear how the leachate, stormwater, and any suspended solids or non-liquids collected in these ponds will be disposed of. The release of the leachate and stormwater effluent to surface drainages could impact off-site surface water resources and surface soil.

***Recommendation:***

The FEIS should clarify any disposal practices or activities associated with the pond systems for the project.

**Hazardous Material, Health, and Safety**

The DEIS discusses the direct and indirect impacts of hazardous materials and solid and hazardous wastes associated with the project and its operations. The DEIS does not identify the projected volumes, the composition or constituents of the waste, and appropriate mitigation to minimize the generation of solid and hazardous wastes. Additionally, the DEIS does not identify the management practice to prevent wind dispersion of waste from the piles of waste rock material.

***Recommendation:***

The FEIS should identify projected volume and the composition or constituents of solid and hazardous waste. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization). Also, the FEIS should include the management practice to prevent wind dispersion of the waste rock material.

**Consultation and Coordination with Indian Tribes**

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249; November 6, 2000), requires regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

***Recommendation:***

The FEIS should include complete descriptions of consultation and coordination activities, including correspondence to and from Tribal governments and other consultation-related documents. These documents would demonstrate fulfillment of Tribal consultation duties by BLM and Tribal government engagement.

**Invasive Species**

Executive Order 13112, *Invasive Species* (February 3, 1999), mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species.

***Recommendation:***

The FEIS should clarify the invasive plant management plan to be used for monitoring and controlling noxious weeds. If herbicides or pesticides will be used to manage vegetation, the FEIS should disclose the projected quantities and types of chemicals. The invasive plant management plan should specify the methods that can be used to limit the introduction and spread of invasive species during and post-construction. The FEIS should specify alternative management practices that limit herbicides use and focus on other methods to limit invasive species vegetation and decrease fire risk. Additionally, the FEIS should specify how the project will meet the requirements of Executive Order 13112 for any new landscaping.

**Threatened and Endangered Species**

The DEIS identifies that U.S. Fish and Wildlife Service (USFWS) was contacted for threatened and endangered species consultation under Section 7 of the Endangered Species Act, but there is not concurrence from the USFWS on any conclusion reached by BLM in the DEIS on the environmental consequences of the proposed project's alternatives. Also, BLM should coordinate with New Mexico Department of Game and Fish to ensure current and consistent surveying, monitoring, and reporting protocols are applied in protection and mitigation effort.

***Recommendation:***

The FEIS should incorporate concurrence from the USFWS on the BLM determination for impacts of the proposed project to threatened and endangered species. Also, BLM should coordinate with New Mexico Department of Game and Fish to ensure current and consistent surveying, monitoring, and reporting protocols are applied in protection and mitigation efforts.

**Migratory Bird Treaty Act**

Executive Order 13186, *Migratory Bird Treaty Act*, addresses the protection of birds that live, reproduce, or migrate within or across international borders. The DEIS identifies there may be a significant potential adverse impacts to migratory birds from exposure to evaporation pond water unless mitigation measures are implemented.

***Recommendation:***

The FEIS should incorporate concurrence from the USFWS on the BLM determination for impacts of the proposed project to migratory birds. Also, BLM should coordinate with New Mexico Department of Game and Fish to ensure current and consistent protocols are applied in protection and mitigation efforts.

**National Historic Preservation Act Section 106 Consultation**

The project falls within the Southeastern New Mexico Archaeological Region. The DEIS provides information that Texas State Historic Preservation Officers (SHPO), Advisory Council on Historic Preservation, and Tribal Historic Preservation Officer (THPO) were contacted by BLM for coordination purposes under National Historic Preservation Act (NHPA) Section 106 Consultation.

***Recommendation:***

The FEIS should include complete descriptions of consultation and coordination activities regarding historic, cultural, or archeological resources, including correspondence and other consultation-related documents. These documents would demonstrate fulfillment of NHPA by BLM.

**Rangelands and Livestock Grazing**

The DEIS discusses direct and indirect impacts associated with the loss of forage, increased vehicle traffic, and potential impacts to seasonal livestock movement. The DEIS does not identify the type of fencing to prevent livestock movement in the project area, or clarify the impact on the livestock's water sources and dust from increased vehicle traffic.

***Recommendation:***

The FEIS should include the type of fencing used to prevent livestock movement and clarify the impact on the livestock's water sources and dust from increased vehicle traffic.

**Other Associated Plans and Permits**

The DEIS identifies several plans to be developed and applicable permits associated with the proposed project without fully providing information. The associated plans and permits are important components to the DEIS.

***Recommendation:***

The FEIS should include the plans and permits, including copies of or identifying accessible locations, for evaluation.

**Consultation and Coordination**

The DEIS identifies that the BLM coordinated and consulted with several federal and state agencies, counties, and municipalities. However, the DEIS does not include comments and concurrences from these entities.

***Recommendation:***

The FEIS should include all comments and concurrences received from consultation and coordination with Agencies, Organizations, Governments, and Persons contacted, including the New Mexico Office of State Engineer; New Mexico Energy, Minerals, and Natural Resource Department; and New Mexico Environmental Department.

**Cumulative Impacts**

Cumulative impact analysis is the combination of individual effects of multiple actions over time in the context of other development in the project area or the region. There are several regulated facilities within 1,000 meters of the project area. The DEIS does not identify all the facilities.

***Recommendation:***

The FEIS should include in the cumulative impact analysis all regulated facilities within 1,000 meters of the project area.